

Reflection of The Virtual Learning Environment in The Covid-19 Pandemic Period

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Abstract

Virtual learning was widely used during the Covid-19 pandemic. This situation shows that technology-based learning has been able to overcome the limitations of space and time. This learning has become a solution to educational problems during the Covid-19 pandemic. However, from virtual learning, there are still complaints among teachers and students about the effectiveness of virtual learning. The problem in this study is the obstacle in virtual-based learning in the new normal era. The aim of this research is to analyze the constraints of virtual learning in the new normal era. 30 teachers and 50 students who have conducted virtual learning interactions are used as subjects in this study. These obstacles were identified by interview and questionnaire techniques. Furthermore, the data obtained were analyzed using a qualitative descriptive approach and using the concept of learning and learning theory. Based on the research results, it was found that virtual learning constraints still occur in various elements of learning, such as problems with teachers, learning media, teaching materials, learning evaluation, and learning interactions. So, it is still necessary to develop various aspects of learning, such as teacher teaching creativity, media and learning materials, as well as a good internet network.

Keywords: virtual learning, learning problems, Covid-19, new normal

1. Introduction

The Covid-19 pandemic has caused social restrictions. Social restrictions have changed the teaching and learning process from the real environment to the virtual environment. Virtual based learning has been carried out by various educational institutions throughout the world. Not only in the context of education, but also in various other dimensions of life. Corporate work meetings, training, seminars, government outreach and various other activities have shifted towards the virtual world.

During this time the teacher and students do interaction learning in class. However, with virtual learning, teachers and students only interact in front of a computer or smartphone. The teaching and learning process is carried out from different places. This has shown that technology has become a solution to the limitations of space and time. Teachers and students still need habituation in distance learning interactions. Not only in the aspects of teaching and learning, but they must also improve literacy and technological skills. Teachers are required to adjust teaching methods with the learning media used. Students must be more motivated in learning, because it is not supervised directly by the teacher.

The teacher usually communicates one or two directions in school, with face-to-face meeting, direct discussions and exercises together. The teacher will more easily give an explanation and explanation of a material, while students will find it easier to understand and discuss directly with the teacher. With this pandemic occurrence, it has become very difficult to maintain the teacher's communication style habits. Therefore, there is a need to change the style of teacher communication during or during the Covid-19 pandemic. The communication used is long distance in this case known as communication in the network. This communication, allows teachers as communicators and students as communicants to communicate via the internet or cyberspace. The goal is, can be controlled remotely, time efficiency can be done anytime and anywhere.

The teacher as an information facilitator must be able to build effective virtual communication. Effective communication is communication that is always established between teacher and student so that it can lead to a change in attitude or character in a better direction for students. Accuracy of information is key in creating effective communication. This happens if similarities in understanding, attitude, and language. Messages or information can be received and understood and understood as intended by the communicator (teacher). The message delivered can be approved by the communicant (student). There are no significant obstacles in following up messages or information.

2. Literature Review

2.1 Virtual learning

Virtual learning makes it easy for teachers and students to do distance learning (González-marcos et al., 2016; Mueller & Strohmeier, 2011). But on the other hand, virtual learning presents challenges in relation to student motivation (Raes et al., 2020). Research on challenges that arise from learning experiences in virtual environments is researched by (Cathro, 2020). Teachers experience limitations in managing learning situations in virtual learning that are carried out in different physical spaces (Muñoz-Cristóbal et al., 2017). Therefore, teachers must be more creative in utilizing virtual learning media. In virtual learning it is necessary to use varied learning media. Variative learning media can increase interaction in online learning. Learning approaches that should be used in virtual learning are student-centered approaches and teachers must be able to provide motivation to students in participating in learning (Choi & Baek, 2011). Virtual learning has been developed throughout the world today. The development of virtual learning models must be able to answer various questions and future existence. One of the questions about the role of technology in education is whether digital-based learning can improve the quality of education or not? (Shields, 2015).

2.2 Challenges in virtual learning interactions

Virtual based activities have touched various aspects of life. However, the quality and impact of these virtual facilities is not fully understood by the public (Bossert, 1997). In virtual learning more teacher-centered approaches are used. Variative and interactive learning methods have not been done much. The formation of study groups is one of the challenges in a virtual learning environment (Ashby & Broughan, 2002). Based on observations, there are still challenges in virtual learning. Some challenges in the virtual learning environment are that there are still many students who are not confident in participating in online learning (Ashby & Broughan, 2002). The teacher as a motivator and facilitator in learning, needs to provide motivation to students. It takes the ability of the teacher to control student emotions in learning. Control of student emotions is very important in creating interactive learning (Gilmore & Warren, 2007). Time management is also a matter of concern in internet-based learning (Allan, 2007). Virtual learning environments must be well designed in order to create interactive learning (Matthews & McDonald, 2004). Effective learning interactions in virtual learning environments need to be explored, as in research conducted by (Vuopala, 2015). Learning interactions will definitely affect student learning outcomes. The failure of teachers to create an effective learning environment will harm students (Mogus et al., 2012).

2.3 Virtual learning during the Covid-19 pandemic

Pandemic Covid-19 has led to a policy of social restrictions from governments in almost all over the world. These social restrictions then impact on various fields of life. The education sector is one of the targets of the impact of social restrictions. These social restrictions have changed people's habits of interaction. From these problems, the internet network then becomes a solution to facilitate social interaction, including in terms of educational interactions. Forms of educational interaction throughout the world have been directed toward virtual learning (Favale et al., 2020; Krishnamurthy, 2020; Li et al., 2020; Stambough et al., 2020).

2.4 Virtual learning during the Covid-19 pandemic

Virtual learning was widely used during the Covid-19 pandemic. Socialization, training, and workshops have been carried out through cyberspace. However, the learning model gave birth to pros and cons in the community. Many teachers and students support the learning system and many disagree. One of the fundamental reasons for people who

disagree is about its relationship with tradition and culture. There are still people who are afraid of change, including in terms of changes in the learning system. (Vivolo, 2016).

3. Methodology

The method used in this research is descriptive qualitative analysis method. Through this method, researchers describe the problems and obstacles found in the process of implementing virtual-based learning. Learning problems and obstacles are analyzed using the concepts of learning and learning theory. Through this method, researchers analyzed and described the perceptions of teachers and students towards the virtual learning process during the Covid-19 pandemic. The use of qualitative descriptive analysis research methods is described as follows.

1. Collecting data and information needed about teacher and student assessment responses to the virtual learning process using interview and questionnaire techniques.
2. Identify teacher and student responses and assessments to the virtual learning process
3. Analyze obstacle and challenge factors for virtual learning based on teacher and student responses.
4. Provide recommendations regarding things that need to be done to overcome obstacles and challenges in virtual learning.

4. Result and Discussion

4.1 Results

In this study, researchers conducted interviews with teachers and students. Researchers ask about their response to the virtual learning process. The results of interviews with teachers can be seen in table 1 and the results of interviews with students can be seen in table 2.

Table 1. Teacher responses to the virtual learning process

Informan	Respons
WG/01/13/4/20	In my opinion, virtual learning or learning in internet networks is very helpful in situations like this. However, there were obstacles that I experienced after teaching using online learning applications. I feel that it is more difficult for me to control student interactions.
WG/02/13/4/20	Through online learning the teaching and learning process can be done remotely. Timing of learning is also more flexible. But sometimes there are many students who don't do assignments. Students are more free and there are students who are not serious about learning.
WG/03/15/4/20	In virtual learning, students lack discipline in doing assignments. There are students who don't have internet credit and even many students who don't have smartphones. That has become an obstacle for me in teaching now.
WG/04/15/4/20	S I first used the learning application in the network. Before I teach with the application, I must study the application. However, little by little I can use it.
WG/05/20/4/20	In my opinion virtual learning is teacher-centered learning. I explain more material through PowerPoint. I don't know whether all students pay attention or not.
WG/06/22/4/20	Based on my experience in teaching online, I can say that there are many advantages to the learning model. But I feel difficulty in providing evaluation of learning. When giving a written assignment, it seems like the students 'answers are more imitating their friends' assignments.

WG/07/22/4/20	Virtual learning is one proof of the development of educational technology. I hope the implementation of online learning is not only applied in circumstances like this, but needs to be further developed.
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Table 2. Student response to the virtual learning process

Informan	Respons
WS/01/15/4/20	I think online learning is very good, but sometimes I feel bored because I just keep listening.
WS/02/15/4/20	I sometimes don't take lessons because I don't have internet credit. I'm also not very good at using online learning applications
WS/03/22/4/20	Online learning can bring students and teachers together from a distance. But I feel that my learning motivation when studying online is lower when compared to when I study in class.
WS/04/22/4/20	Sometimes the internet network is not good so that learning becomes disrupted. But learning through the internet is very helpful in my opinion.
WS/05/23/4/20	There is one thing that is an obstacle in online learning in my opinion. Students are not given many opportunities to respond to the teacher's explanation directly. The interaction of teaching and learning online is different from learning in the classroom.
WS/06/24/4/20	In my opinion, teachers must be more creative in teaching through online learning. I feel bored when the teacher only explains the material.
WS/07/24/4/20	In online learning I feel more free. I am more relaxed in participating in learning. I usually don't do assignments from the teacher.

In addition to using interview techniques to collect data about teacher and student perceptions of the virtual learning process, researchers also collect teacher and student assessment data on the effectiveness of the virtual learning process. Teacher assessment data can be seen in table 3 and student assessment data can be seen in table 4.

Table 3. Teacher's assessment of the virtual learning process

No	Guru	Penilaian			
		Sangat efektif	efektif	Kurang efektif	Tidak efektif
1	WG/01/13/4/20			√	
2	WG/02/13/4/20			√	
3	WG/03/15/4/20				√
4	WG/04/15/4/20			√	
5	WG/05/20/4/20			√	
6	WG/06/22/4/20				√
7	WG/07/22/4/20			√	
8	WG/08/13/4/20		√		
9	WG/09/13/4/20			√	
10	WG/10/15/4/20		√		
11	WG/11/15/4/20			√	
12	WG/12/20/4/20			√	
13	WG/13/22/4/20				√
14	WG/14/22/4/20				√

15	WG/15/13/4/20			√	
16	WG/16/13/4/20			√	
17	WG/17/15/4/20		√		
18	WG/18/15/4/20			√	
19	WG/19/20/4/20			√	
20	WG/20/22/4/20				√
21	WG/21/22/4/20			√	
22	WG/22/13/4/20			√	
23	WG/23/13/4/20		√		
24	WG/24/15/4/20				√
25	WG/25/15/4/20			√	
26	WG/26/20/4/20			√	
27	WG/27/22/4/20		√		
28	WG/28/22/4/20			√	
29	WG/29/13/4/20			√	
30	WG/30/13/4/20				√

Table 4. Student Assessment of the Virtual Learning Process

No	Siswa	Penilaian			
		Sangat efektif	efektif	Kurang efektif	Tidak efektif
1	WS/01/15/4/20		√		
2	WS/02/15/4/20			√	
3	WS/03/22/4/20			√	
4	WS/04/22/4/20				√
5	WS/05/23/4/20			√	
6	WS/06/24/4/20			√	
7	WS/07/24/4/20				√
8	WS/08/15/4/20		√		
9	WS/09/15/4/20				√
10	WS/10/22/4/20				√
11	WS/11/22/4/20			√	
12	WS/12/23/4/20			√	
13	WS/13/24/4/20				√
14	WS/14/24/4/20			√	
15	WS/15/15/4/20			√	
16	WS/16/15/4/20				√
17	WS/17/22/4/20			√	
18	WS/18/22/4/20				√
19	WS/19/23/4/20		√		
20	WS/20/24/4/20			√	
21	WS/21/24/4/20			√	
22	WS/22/15/4/20				√
23	WS/23/15/4/20			√	
24	WS/24/22/4/20			√	
25	WS/25/22/4/20		√		
26	WS/26/23/4/20			√	
27	WS/27/24/4/20				√
28	WS/28/24/4/20			√	
29	WS/29/15/4/20			√	
30	WS/30/15/4/20		√		
31	WS/31/22/4/20			√	

32	WS/32/22/4/20			√	
33	WS/33/23/4/20				√
34	WS/34/24/4/20				√
35	WS/035/24/4/20			√	
36	WS/36/15/4/20			√	
37	WS/37/15/4/20			√	
38	WS/38/22/4/20				√
39	WS/39/22/4/20			√	
40	WS/40/23/4/20			√	
41	WS/41/24/4/20			√	
42	WS/42/24/4/20				√
43	WS/43/15/4/20				√
44	WS/44/15/4/20			√	
45	WS/45/22/4/20			√	
46	WS/46/22/4/20			√	
47	WS/47/23/4/20				√
48	WS/48/24/4/20			√	
49	WS/49/24/4/20			√	
50	WS/50/24/4/20				√

Teacher and student assessment data on the virtual learning process during the Covid-19 pandemic can also be described in chart. Teacher assessment data can be seen in figure 1 and student assessment data can be seen in figure 2.

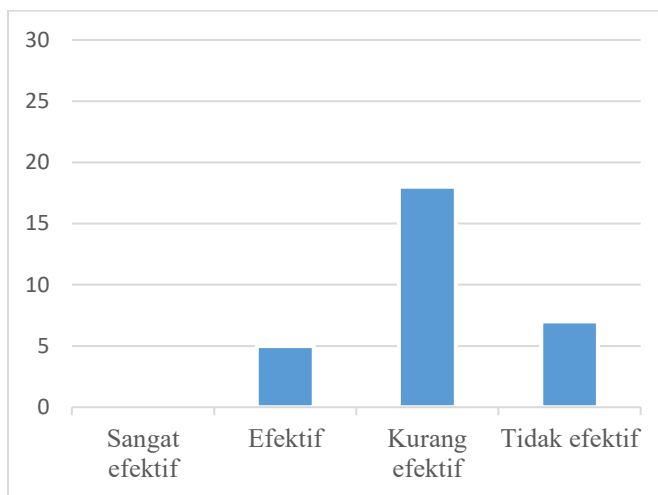


Figure 1. Teacher's assessment of the Virtual Learning Process

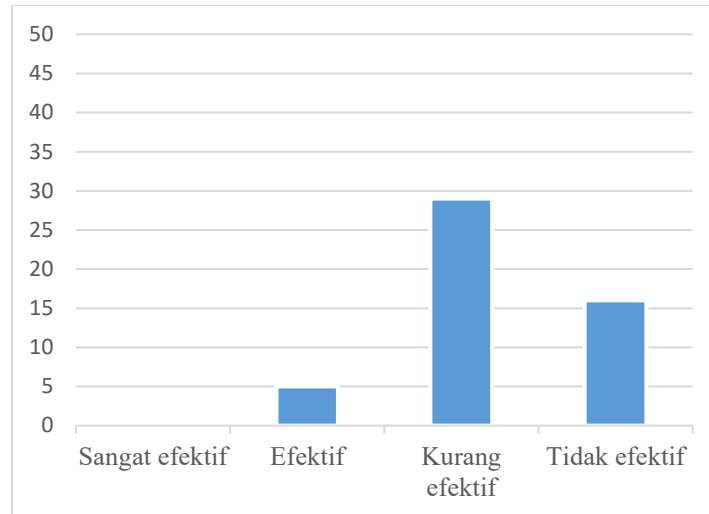


Figure 2. Student's Assessment of the Virtual Learning Process

4.2 Discussion

Based on the results of the study, it can be described that virtual learning has weaknesses and challenges. First, it does not represent the emotions of the wearer in this case the teacher and students, so the teacher is very difficult in providing understanding to students, and the teacher does not know the extent of student understanding. Second, there is information that is not important, or the information obtained will be very much and difficult to filter and control, so that the recipient of the information will be confused. Third, it takes a lot of concentration because it does not suit the place and time, so time management must take precedence.

Therefore, to fulfill these elements of effective communication in online learning, the teacher must do various things. First, create online class rules, including the time and application used. Second, build a good atmosphere for discussion in online classes, although it is rather difficult to do but try to do the discussion whether synchronous or asynchronous. Do not let students who ask questions or need reinforcement not be served. Third, although in online learning, teachers should still use verbal and non-verbal expressions in providing feedback, reward and punishment. Here you can use emoticons, stickers, or sentences that motivate students. Fourth, the teacher must be able to relate the material to the current or current situation, so that it will be easily understood by students. Fifth, use video or animation that supports the material so it's not boring.

Besides that, in developing communication, the teacher also needs to pay attention to several things such as the following. First, use language that is simple and easy to understand, and can motivate students' psychic. Second, the teacher must be able to understand the conditions or circumstances of his students. Third, the meaning of the message or information must be clear and useful. Fourth, the teacher must be able to instill respect and mutual assistance if there are other students who are experiencing difficulties. It may be that in this situation students are helping the teacher in various ways, for example difficulties in using applications. Fifth, teachers must also instill a democratic spirit in their students. Democracy is shown by giving freedom to each other to input during online learning, to hear or understand each other with the situation and be able to provide solutions to any problems experienced in online learning during the Covid-19 pandemic.

4. Conclusions

Based on a literature review and research results, it can be concluded that virtual-based learning still has many problems and obstacles. These problems and obstacles are found in various aspects of learning, such as teachers, students, media or virtual learning applications, and in learning interactions. So it still needs to be updated and adjusted from various aspects.

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